

ALMA Data and Archives

what to expect when you're expecting (ALMA data)!



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Atacama Large Millimeter/submillimeter Array
Expanded Very Large Array



- Data delivered after passing Quality Assurance (QA)
- Download data from *Archive Query* and *Request Handler* tools on the ALMA Science Portal
- Delivered data include:
 - Calibration tables and diagnostics
 - Preliminary images (*better products may be possible with more careful continuum identification & interactive cleaning*)
- Sections 11, 12, 14, and Appendix C of ALMA Technical Handbook

This talk will be available online for reference after this workshop.

An approximate* ALMA timeline



April 17!

ALMA submission deadline

ALMA Phase 2

October 2019 — September 2020

Proprietary period

Available to public!

Your data are observed and calibrated (QA0)

Data delivery!

Review period



Your proposal is accepted!

Late July 2019

Calibration and processing (QA2)

Check your data! (possibly QA3)

Calibration between observations (QA1)

* Not to scale!



Goals of Quality Assurance (QA) Process

- Ensure reliable final data product
 - Desired sensitivity (as specified by PI)
 - Desired resolution (as specified by PI)
- Ensure calibration and QA imaging free from major artifacts
- Warning: Errors in PI-supplied parameters are outside scope of QA process, including:
 - Incorrect source coordinates
 - Inadequate frequency specification
 - Inadequate sensitivity limits



See [ALMA Technical Handbook](#) for details.

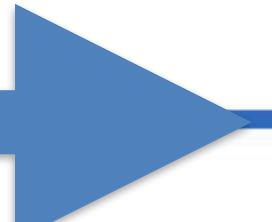
During Observations – QA0



- Monitoring of on-the-fly calibration and system performance
- Rapidly-varying parameters (~EB timescales)
 - Atmospheric effects
 - Antenna issues
 - Front/back-end issues
 - Connectivity issues
- Tolerances for each are explicitly laid out
 - No fewer than 40 antennas in 12m array
 - Bandpass calibrator is strong enough
- Quick reduction may be run to check flux measurements and phase stability



Review period



- “Regular array maintenance” timescales
- Slowly Varying Parameters ($\sim >$ week timescales)
- General array calibration
 - Baseline measurements
 - Delays
- Antenna Calibrations
 - All-sky pointing
 - Focus curves
 - Beam patterns, etc.
- Observatory Calibrator Surveys
 - Solar-system and quasar flux monitoring



Review period



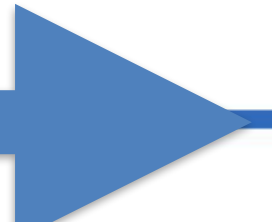
After Observations – QA2



- Calibration by pipeline (~70%), checked by NRAO staff.
- Final QA calibration checks include:
 - Bandpass quality
 - Flux scale calibration
 - Phase transfer and astrometry
- Final data characterization includes:
 - RMS noise in target images
 - Spatial resolution for specified weighting scheme
 - Coverage and time on target (after flagging)
 - And more! (see technical handbook)
- Information about QA review is aggregated for delivery in the QA2 Report

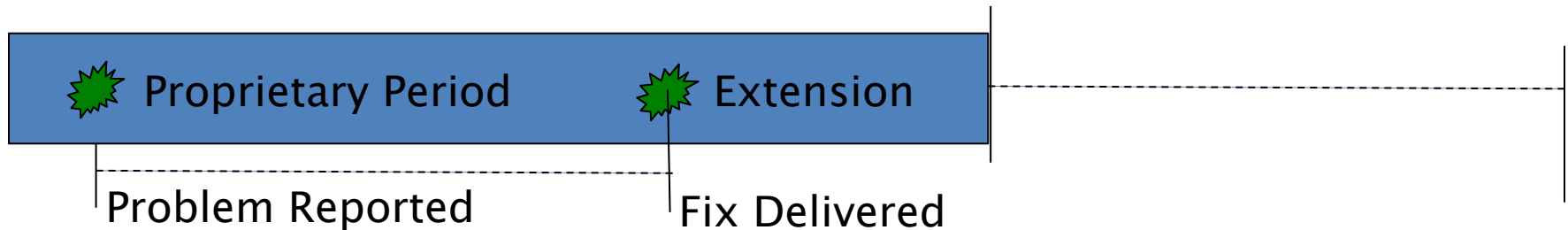


Review period



After Delivery – QA3

- Additional QA stage possibly triggered by PI reporting any issues underlying:
 - Data, observing procedure, calibration
- Re-evaluation of calibrated data products
 - Only occurs if QA0 → QA2 miss something
- Proprietary period extension (within two months of delivery)



- After two months, extension only until fix is delivered



Monitor Project Status: SnooPI

<https://almascience.eso.org/observing/snoopi>



The screenshot displays the SnooPI web interface. On the left is a dark blue navigation sidebar with the following items: SnooPI, NAVIGATION (Home, My Projects, My SchedBlocks), QUICK LINKS (User Manual, Science Portal, Archive Query, Helpdesk), and logos for ESO, NRAO, and NAOJ at the bottom. The main content area shows a header with the ALMA logo, the user name 'John Smith, EU Executive, EU ARC', and two filter buttons: 'All projects' and 'Contact scientist'. Below the header are four dashboard cards: '5/8 PI Projects', '9/9 PI Scheduling Blocks', '22/34 Co-I Projects', and '58/60 Co-I Scheduling Blocks'. A 'Tickets' card shows '0 Tickets'. A news section below contains three items with dates and project details. At the bottom is a search bar with the text 'Search Projects or Scheduling Blocks' and a 'Projects' dropdown menu.

Be sure to check “All projects” to see PI’ed and co-I’ed projects of all ranks

You can see all your projects at a glance, your QA reports, etc.



Optional emails



Click Name



Atacama Large Millimeter/submillimeter Array
In search of our Cosmic Origins

About Science Proposing Observing Data Processing Tools Documentation Help Internal Documents

Search Site

Erica Keller
Profile
Log out

Click Profile

Observatory News

EU ARC News

Status

Additional Information for Cycle 6 Proposals
Feb 01, 2018

Researcher position available at the Nordic ARC node
Jan 10, 2018

[ALMA Cycle 5 Config Schedule](#)

New Science Verification data are now available for download
Jan 22, 2018

Post-doc position available at the Italian ARC-node
Dec 20, 2017

Refereed publications: 916
Last observed source: W43-MM1
Current configuration: C43-5

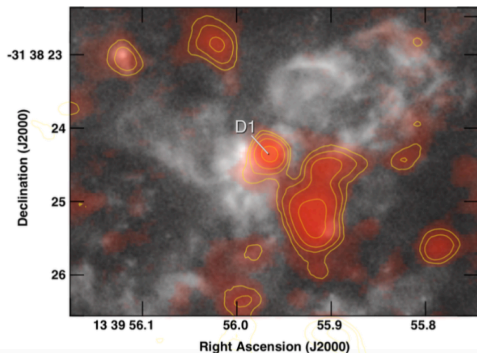
Announcement of intent to release a new installment of Science Verification data
More...

2017 European Radio Interferometry School
May 11, 2017

More...

Science Highlights - Molecular Gas Within the Supernebula of the Dwarf Galaxy NGC 5253

by [Portal Admin](#) — last modified Nov 30, 2017 09:38 PM



One of the areas of extragalactic research which makes great dwarf galaxies. In a [recent study](#) by Dr. Jean Turner and her co-authors, they detected a $^{13}\text{CO}(3-2)$ emission (Cloud D1) from the core of a giant star-forming region. This region is estimated to have 1400-1800 O stars..

[Full Summary...](#)

If you want to receive emails about the status of your data before its delivered:



Optional emails



Account info Project delegation Account linking Demographics

Edit Profile

(Fields marked with a red dot are mandatory)

First name	<input type="text" value="Erica"/>
Middle initials	<input type="text" value="C"/>
Surname	<input type="text" value="Keller"/>
E-mail	<input type="text"/>
Receive optional emails	<input checked="" type="checkbox"/>
Account name	<input type="text"/>
Password	<input type="password"/>
Re-type password	<input type="password"/>
Institution	<input type="text" value="United States"/> <input type="text" value="VA"/> <input type="text" value="National Radio Astronomy Observatory; North American ALMA Scier"/>

Last password update: 25-Feb-2016 15:26:38

 Click Checkbox

In case of problems with the registration, please use [this Web form](#) to contact us
You may find a solution to your problem in the [Support Center/Knowledgebase](#)

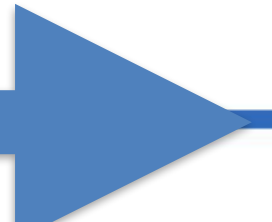


Data Delivery!

- Pls get two delivery emails:
 1. Sent when an individual observation passes QA2
 - Link to data archive with products
 2. From NAASC staff
 - Fully-calibrated MS
 - Calibration and Imaging Report
 - ADMIT products
- Triggers Start of Proprietary Period
- Publication Requirements:
 - ALMA acknowledgement
 - NRAO specific acknowledgement



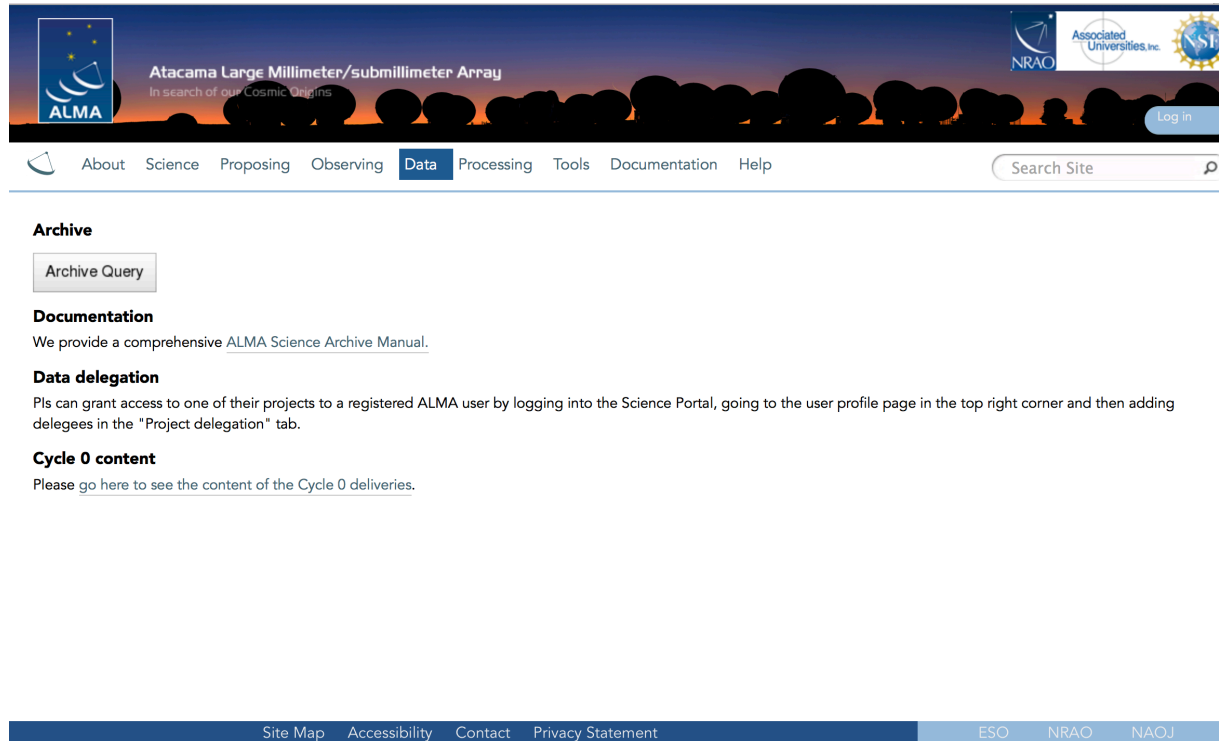
Review period



How to find the archive

Go to the science portal: <https://almascience.nrao.edu>

– Click on “Data” and select “Archive”



The screenshot shows the ALMA Science Portal website. The header features the ALMA logo and the text "Atacama Large Millimeter/submillimeter Array" with the tagline "In search of our Cosmic Origins". Logos for NRAO, Associated Universities, Inc., and the Science and Technology Center for Submillimeter Physics (STC) are also present. A navigation menu includes "About", "Science", "Proposing", "Observing", "Data", "Processing", "Tools", "Documentation", and "Help". A search bar is labeled "Search Site".

Archive

[Archive Query](#)

Documentation

We provide a comprehensive [ALMA Science Archive Manual](#).

Data delegation

PIs can grant access to one of their projects to a registered ALMA user by logging into the Science Portal, going to the user profile page in the top right corner and then adding delegates in the "Project delegation" tab.

Cycle 0 content

Please [go here](#) to see the content of the Cycle 0 deliveries.

Site Map Accessibility Contact Privacy Statement ESO NRAO NAOJ

ALMA Science Archive Query

<http://almascience.nrao.edu/aq/>

Query Form Results Table

Search Reset

[Query Help](#)

Position

Source name (Sesame)
Source name (ALMA)
RA Dec

Energy

Frequency
Bandwidth
Spectral resolution
Band

Time

Observation date
Integration time

Polarisation

Polarisation type

Observation

Water vapour

Project

Project code

Project title
PI name

Project code
Project code.

Description
Project code, in the form
YYYY.NNNNN.C.AAA, where:

Example
2010.2.00010.N
2010.*
2010.?*.CSV
*.CSV
!(*.CSV | *.SIM)

Options

View: raw data project
 public data only
 science observations only

Archive Query

Query Form Results Table

Submit download request

Results Bookmark Export Table Results Help

Showing 30 rows (30 before filtering).

[More columns](#)

<input type="checkbox"/>	Project code	Source name	RA	Dec	Band	Integration	Release date ▲	Velocity resolution	Frequency support
Filter:	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text" value="m/s"/> ↕	<input type="text"/>
<input checked="" type="checkbox"/>	2012.1.00090.S	S2CLS_UDS110	02:18:48.44	-05:18:05.0	7	9.326	2014-11-07T09:35:00.000	27236.96	336.00..351.99GHz
<input checked="" type="checkbox"/>	2012.1.00090.S	S2CLS_UDS156	02:18:24.23	-05:22:53.4	7	8.836	2014-11-07T09:35:00.000	27236.96	336.00..351.99GHz
<input checked="" type="checkbox"/>	2012.1.00090.S	S2CLS_UDS160	02:18:23.86	-05:11:36.2	7	8.842	2014-11-07T09:35:00.000	27236.96	336.00..351.99GHz
<input type="checkbox"/>	2012.1.00090.S	S2CLS_UDS168	02:18:20.34	-05:31:41.6	7	8.843	2014-11-07T09:35:00.000	27236.96	336.00..351.99GHz
<input checked="" type="checkbox"/>	2012.1.00090.S	S2CLS_UDS199	02:18:07.38	-04:44:11.7	7	8.812	2014-11-07T09:35:00.000	27236.96	336.00..351.99GHz
<input type="checkbox"/>	2012.1.00090.S	S2CLS_UDS204	02:18:03.01	-05:28:39.8	7	8.873	2014-11-07T09:35:00.000	27236.96	336.00..351.99GHz
<input type="checkbox"/>	2012.1.00090.S	S2CLS_UDS216	02:17:56.80	-04:52:39.6	7	8.82	2014-11-07T09:35:00.000	27236.96	336.00..351.99GHz
<input type="checkbox"/>	2012.1.00090.S	S2CLS_UDS252	02:17:37.79	-05:20:10.2	7	8.827	2014-11-07T09:35:00.000	27236.96	336.00..351.99GHz
<input type="checkbox"/>	2012.1.00090.S	S2CLS_UDS286	02:17:25.76	-05:25:36.5	7	9.657	2014-11-07T09:35:00.000	27236.96	336.00..351.99GHz
<input type="checkbox"/>	2012.1.00090.S	S2CLS_UDS292	02:17:21.85	-05:19:03.3	7	8.815	2014-11-07T09:35:00.000	27236.96	336.00..351.99GHz
<input type="checkbox"/>	2012.1.00090.S	S2CLS_UDS298	02:17:19.90	-05:09:36.4	7	9.55	2014-11-07T09:35:00.000	27236.96	336.00..351.99GHz
<input type="checkbox"/>	2012.1.00090.S	S2CLS_UDS334	02:17:02.81	-04:57:24.9	7	8.856	2014-11-07T09:35:00.000	27236.96	336.00..351.99GHz
<input type="checkbox"/>	2012.1.00090.S	S2CLS_UDS408	02:16:22.59	-05:11:06.0	7	8.819	2014-11-07T09:35:00.000	27236.96	336.00..351.99GHz
<input type="checkbox"/>	2012.1.00090.S	S2CLS_UDS421	02:16:17.62	-05:09:02.0	7	8.803	2014-11-07T09:35:00.000	27236.96	336.00..351.99GHz
<input type="checkbox"/>	2012.1.00090.S	S2CLS_UDS47	02:19:24.97	-05:09:19.9	7	8.785	2014-11-07T09:35:00.000	27236.96	336.00..351.99GHz

Archive Query: more columns

<input type="checkbox"/>	Project code	<input type="checkbox"/> Show all columns <input type="checkbox"/> Reset column order <input type="checkbox"/> Order alphabetically		Frequency support
Filter:	<input type="text"/>			<input type="text"/>
<input type="checkbox"/>	2012.1.00090.S	<input checked="" type="checkbox"/> Project code	Project code, in the form YYYY.NNNNN.C.AAA, where:	335.99..351.99GHz
<input type="checkbox"/>	2012.1.00090.S	<input checked="" type="checkbox"/> Source name	Name of the source as registered in the ASDM. Partial matches through wildcards (? , *), and boolean OR expressions (" "), can be used.	335.99..351.99GHz
<input type="checkbox"/>	2012.1.00090.S	<input checked="" type="checkbox"/> RA	deg Right Ascension of the field pointing.	335.99..351.99GHz
<input type="checkbox"/>	2012.1.00090.S	<input checked="" type="checkbox"/> Dec	deg Declination of the field pointing.	335.99..351.99GHz
<input type="checkbox"/>	2012.1.00090.S	<input checked="" type="checkbox"/> Band	ALMA receiver band.	335.99..351.99GHz
<input type="checkbox"/>	2012.1.00090.S	<input checked="" type="checkbox"/> Integration	s Aggregated integration time for the field in the ASDM.	335.99..351.99GHz
<input type="checkbox"/>	2012.1.00090.S	<input checked="" type="checkbox"/> Release date		335.99..351.99GHz
<input type="checkbox"/>	2012.1.00090.S	<input checked="" type="checkbox"/> Velocity resolution	m/s Estimated velocity resolution from all the spectral windows, from frequency resolution.	335.99..351.99GHz
<input type="checkbox"/>	2012.1.00090.S	<input checked="" type="checkbox"/> Frequency support	GHz All frequency ranges used by the field	335.99..351.99GHz
<input type="checkbox"/>	2012.1.00090.S	<hr style="border: 2px solid red;"/>		335.99..351.99GHz
<input type="checkbox"/>	2012.1.00090.S	<input type="checkbox"/> Spatial resolution		335.99..351.99GHz
<input type="checkbox"/>	2012.1.00090.S	<input type="checkbox"/> Frequency resolution	kHz Estimated frequency resolution from all the spectral windows, using median values of channel widths.	335.99..351.99GHz
<input type="checkbox"/>	2012.1.00090.S	<input type="checkbox"/> Pol products	Polarisation products provided.	335.99..351.99GHz
<input type="checkbox"/>	2012.1.00090.S	<input type="checkbox"/> Observation date		335.99..351.99GHz
<input type="checkbox"/>	2012.1.00090.S	<input type="checkbox"/> PI name	case-insensitive partial match over the full PI name. Wildcards can be used	335.99..351.99GHz
<input type="checkbox"/>	2012.1.00090.S	<input type="checkbox"/> PWV	mm Estimated precipitable water vapour from the XML_CALWVR_ENTITIES table.	
<input type="checkbox"/>	2012.1.00090.S	<input type="checkbox"/> Member ous id	MEMBER_OUSS_ID generating this ASDM.	
<input type="checkbox"/>	2012.1.00090.S	<input type="checkbox"/> Asdm uid	UID of the ASDM containing this Field.	
<input type="checkbox"/>	2012.1.00090.S	<input type="checkbox"/> Project title	Case-insensitive search over the project title	
<input type="checkbox"/>	2012.1.00090.S	<input type="checkbox"/> Project type	Project type.	

Archive Query

Query Form **Results Table**

Submit download request

[Results Bookmark](#) [Export Table](#) [Results Help](#)

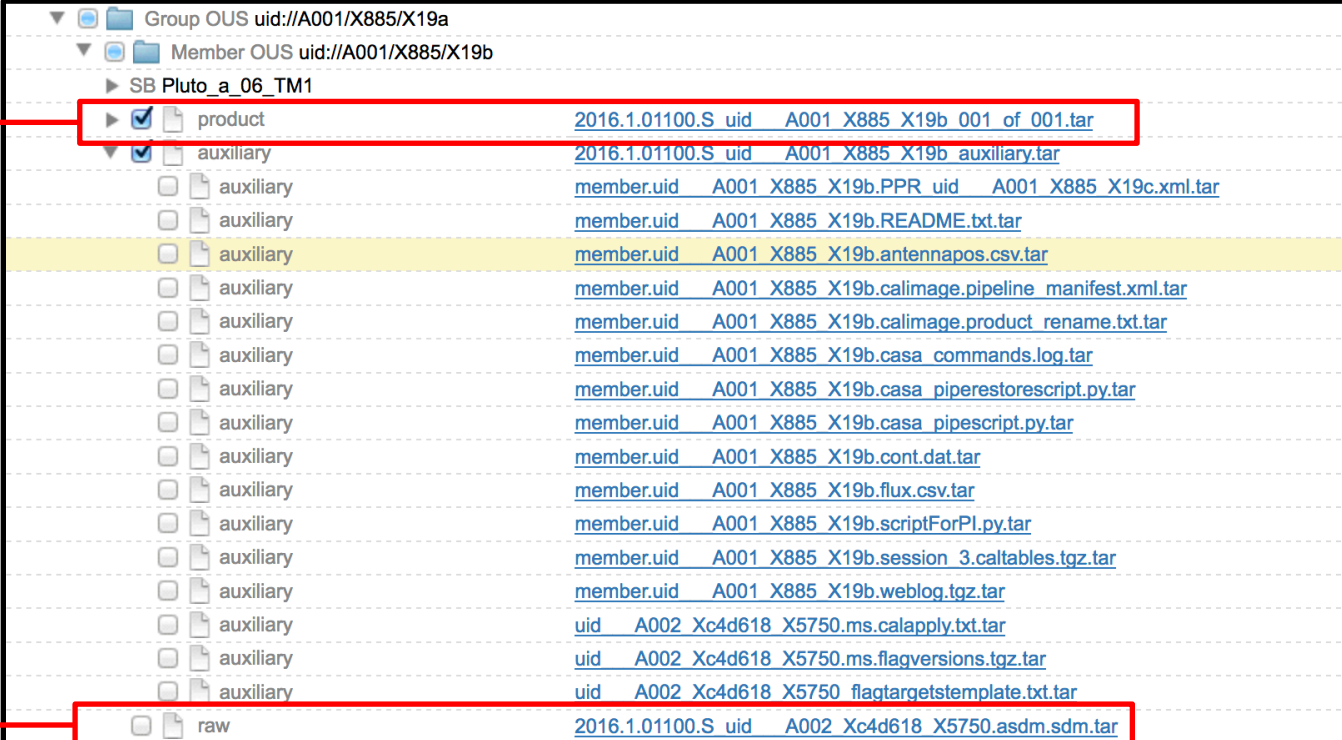
Showing 30 rows (30 before filtering).

[More columns](#)

<input type="checkbox"/>	Project code	Source name	RA	Dec	Band	Integration	Release date ▲	Velocity resolution	Frequency support
Filter:	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text" value="m/s"/> <input type="button" value="↓"/>	<input type="text"/>
<input checked="" type="checkbox"/>	2012.1.00090.S	S2CLS_UDS110	02:18:48.44	-05:18:05.0	7	9.326	2014-11-07T09:35:00.000	27236.96	336.00..351.99GHz
<input checked="" type="checkbox"/>	2012.1.00090.S	S2CLS_UDS156	02:18:24.23	-05:22:53.4	7	8.836	2014-11-07T09:35:00.000	27236.96	336.00..351.99GHz
<input checked="" type="checkbox"/>	2012.1.00090.S	S2CLS_UDS160	02:18:23.86	-05:11:36.2	7	8.842	2014-11-07T09:35:00.000	27236.96	336.00..351.99GHz
<input type="checkbox"/>	2012.1.00090.S	S2CLS_UDS168	02:18:20.34	-05:31:41.6	7	8.843	2014-11-07T09:35:00.000	27236.96	336.00..351.99GHz
<input checked="" type="checkbox"/>	2012.1.00090.S	S2CLS_UDS199	02:18:07.38	-04:44:11.7	7	8.812	2014-11-07T09:35:00.000	27236.96	336.00..351.99GHz
<input type="checkbox"/>	2012.1.00090.S	S2CLS_UDS204	02:18:03.01	-05:28:39.8	7	8.873	2014-11-07T09:35:00.000	27236.96	336.00..351.99GHz
<input type="checkbox"/>	2012.1.00090.S	S2CLS_UDS216	02:17:56.80	-04:52:39.6	7	8.82	2014-11-07T09:35:00.000	27236.96	336.00..351.99GHz
<input type="checkbox"/>	2012.1.00090.S	S2CLS_UDS252	02:17:37.79	-05:20:10.2	7	8.827	2014-11-07T09:35:00.000	27236.96	336.00..351.99GHz
<input type="checkbox"/>	2012.1.00090.S	S2CLS_UDS286	02:17:25.76	-05:25:36.5	7	9.657	2014-11-07T09:35:00.000	27236.96	336.00..351.99GHz
<input type="checkbox"/>	2012.1.00090.S	S2CLS_UDS292	02:17:21.85	-05:19:03.3	7	8.815	2014-11-07T09:35:00.000	27236.96	336.00..351.99GHz
<input type="checkbox"/>	2012.1.00090.S	S2CLS_UDS298	02:17:19.90	-05:09:36.4	7	9.55	2014-11-07T09:35:00.000	27236.96	336.00..351.99GHz
<input type="checkbox"/>	2012.1.00090.S	S2CLS_UDS334	02:17:02.81	-04:57:24.9	7	8.856	2014-11-07T09:35:00.000	27236.96	336.00..351.99GHz
<input type="checkbox"/>	2012.1.00090.S	S2CLS_UDS408	02:16:22.59	-05:11:06.0	7	8.819	2014-11-07T09:35:00.000	27236.96	336.00..351.99GHz
<input type="checkbox"/>	2012.1.00090.S	S2CLS_UDS421	02:16:17.62	-05:09:02.0	7	8.803	2014-11-07T09:35:00.000	27236.96	336.00..351.99GHz
<input type="checkbox"/>	2012.1.00090.S	S2CLS_UDS47	02:19:24.97	-05:09:19.9	7	8.785	2014-11-07T09:35:00.000	27236.96	336.00..351.99GHz

Download requests

Products



File Name	Download Link
product	2016.1.01100.S uid_A001_X885_X19b_001_of_001.tar
auxiliary	2016.1.01100.S uid_A001_X885_X19b_auxiliary.tar
auxiliary	member.uid_A001_X885_X19b.PPR uid_A001_X885_X19c.xml.tar
auxiliary	member.uid_A001_X885_X19b.README.txt.tar
auxiliary	member.uid_A001_X885_X19b.antennapos.csv.tar
auxiliary	member.uid_A001_X885_X19b.calimage.pipeline_manifest.xml.tar
auxiliary	member.uid_A001_X885_X19b.calimage.product_rename.txt.tar
auxiliary	member.uid_A001_X885_X19b.casa_commands.log.tar
auxiliary	member.uid_A001_X885_X19b.casa_piperestorescript.py.tar
auxiliary	member.uid_A001_X885_X19b.casa_pipescript.py.tar
auxiliary	member.uid_A001_X885_X19b.cont.dat.tar
auxiliary	member.uid_A001_X885_X19b.flux.csv.tar
auxiliary	member.uid_A001_X885_X19b.scriptForPI.py.tar
auxiliary	member.uid_A001_X885_X19b.session_3.caltables.tgz.tar
auxiliary	member.uid_A001_X885_X19b.weblog.tgz.tar
auxiliary	uid_A002_Xc4d618_X5750.ms.calapply.txt.tar
auxiliary	uid_A002_Xc4d618_X5750.ms.flagversions.tgz.tar
auxiliary	uid_A002_Xc4d618_X5750.flagtargetstemplate.txt.tar
raw	2016.1.01100.S uid_A002_Xc4d618_X5750.asdm.sdm.tar

Raw data

QA2 Data Products Package: the processed data



After un-tarring the processed data we have a directory tree:

Science
goal

Project code

```
2017.1.05267.S/
├-- science_goal.uid__A001_X1299_X2z
│  └-- group.uid__A001_X1299_X25
│     └-- member.uid__A001_X1299_X39
```

Group OUS:
combination of
member OUS's

```
|-- calibration
|-- log
|-- member.uid__A001_X1299_X39.README.txt
|-- product
|-- qa
|-- script
```

Member OUS: may contain
12-m array, ALMA Compact
Array (ACA), or Total Power
observation

Data delivery products...



QA2 Data Products Package: the processed data



Calibration Directory:

Calibration tables
generated by the
pipeline

Contains manual flagging commands,
continuum selection, flux
measurements for calibrators

```
-- calibration
|-- member.uid__A001_X1299_X39.hifa_calimage.auxproducts.tgz
|-- member.uid__A001_X1299_X39.session_1.auxcaltables.tgz
|-- member.uid__A001_X1299_X39.session_1.caltables.tgz
|-- uid__A002_Xc8ed15_X1a9.ms.calapply.txt
|-- uid__A002_Xc8ed15_X1a9.ms.flagversions.tgz
|-- uid__A002_Xc8ed15_X1a9.target.ms.auxcalapply.txt
```



All flags will be restored during calibration

QA2 Data Products Package: the processed data

Calibration Products:

Log of equivalent CASA commands (non-executable)

```
log
-- member.uid__ A001_X1299_X39.hifa_calimage.casa_commands.log
-- member.uid__ A001_X1299_X39.README.txt
-- product
| -- member.uid__ A001_X1299_X39.SOURCE_sci.spw25_27_29_31.cont.I.pb.fits
| -- member.uid__ A001_X1299_X39.SOURCE_sci.spw25_27_29_31.cont.I.pbcor.fits
| -- member.uid__ A001_X1299_X39.SOURCE_sci.spw25.cube.I.mask.fits
| -- member.uid__ A001_X1299_X39.SOURCE_sci.spw25.cube.I.pbcor.fits
| -- member.uid__ A001_X1299_X39.SOURCE_sci.spw25.cube.I.pb.fits.gz
| -- member.uid__ A001_X1299_X39.J0117p1418_ph.spw31.mfs.I.pbcor.fits
| -- member.uid__ A001_X1299_X39.J0117p1418_ph.spw31.mfs.I.pb.fits.gz
```

Directions to access QA comments and
restoration instructions

Calibration and Target images produced
during reduction (may be representative)

QA2 Data Products Package: the processed data

Calibration Scripts and Weblog:

Weblog contains plots and images from reduction and imaging. Unpack this for lots of information!

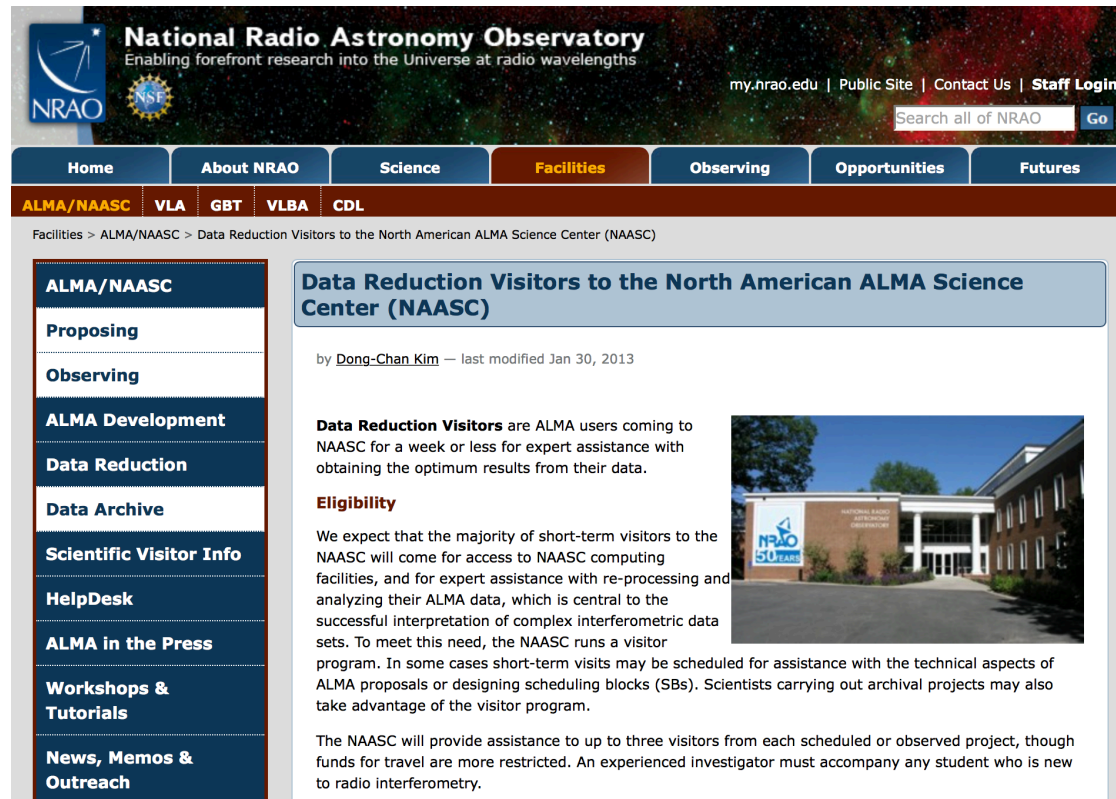
```
| -- qa  
|   |-- member.uid__ A001_X1299_X39.hifa_calimage.weblog.tgz  
|-- script  
| |-- member.uid__ A001_X1299_X39.calimage.pipeline_manifest.xml  
| |-- member.uid__ A001_X1299_X39.calimage.product_rename.txt  
| |-- member.uid__ A001_X1299_X39.hifa_calimage.casa_piperestorescript.py  
| |-- member.uid__ A001_X1299_X39.hifa_calimage.casa_pipescript.py  
| |-- member.uid__ A001_X1299_X39.hifa_calimage.pprequest.xml  
| |-- member.uid__ A001_X1299_X39.scriptForPI.py
```

Run `scriptForPI.py` to restore calibration

Commands to re-run the pipeline

Resources After Delivery

- HelpDesk
- Face to Face visits in Charlottesville: <https://science.nrao.edu/facilities/alma/visitors-shortterm>



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ALMA/NAASC VLA GBT VLBA CDL

Facilities > ALMA/NAASC > Data Reduction Visitors to the North American ALMA Science Center (NAASC)

ALMA/NAASC

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- HelpDesk
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- Workshops & Tutorials
- News, Memos & Outreach


Data Reduction Visitors to the North American ALMA Science Center (NAASC)

by [Dong-Chan Kim](#) — last modified Jan 30, 2013

Data Reduction Visitors are ALMA users coming to NAASC for a week or less for expert assistance with obtaining the optimum results from their data.

Eligibility

We expect that the majority of short-term visitors to the NAASC will come for access to NAASC computing facilities, and for expert assistance with re-processing and analyzing their ALMA data, which is central to the successful interpretation of complex interferometric data sets. To meet this need, the NAASC runs a visitor program. In some cases short-term visits may be scheduled for assistance with the technical aspects of ALMA proposals or designing scheduling blocks (SBs). Scientists carrying out archival projects may also take advantage of the visitor program.



The NAASC will provide assistance to up to three visitors from each scheduled or observed project, though funds for travel are more restricted. An experienced investigator must accompany any student who is new to radio interferometry.



For more info:



<https://almascience.nrao.edu/>

The Atacama Large Millimeter/submillimeter Array (ALMA), an international astronomy facility, is a partnership of Europe, North America and East Asia in cooperation with the Republic of Chile. ALMA is funded in Europe by the European Organization for Astronomical Research in the Southern Hemisphere (ESO), in North America by the U.S. National Science Foundation (NSF) in cooperation with the National Research Council of Canada (NRC) and the National Science Council of Taiwan (NSC), and in East Asia by the National Institutes of Natural Sciences (NINS) of Japan in cooperation with the Academia Sinica (AS) in Taiwan. ALMA construction and operations are led on behalf of Europe by ESO, on behalf of North America by the National Radio Astronomy Observatory (NRAO), which is managed by Associated Universities, Inc. (AUI), and on behalf of East Asia by the National Astronomical Observatory of Japan (NAOJ). The Joint ALMA Observatory (JAO) provides the unified leadership and management of the construction and operation of ALMA.

Monitor Project Status: SnooPI





Listing of PI'ed projects

 SnooPI John Smith, EU Executive,
EU ARC All projects Contact scientist 

PI Co-I

Projects Search...

Project code ▲	Project Title ▲	Status ▲	Grade ▲
2015.1.09876.S	A most inspired project title	*	A
2013.1.04567.S	 Observing stars, planets, nebulae, open clusters, globular galaxies and galaxy clusters with ALMA	⊖	C
2013.1.06789.S	 Observing the centre of the galaxy with ALMA	✓	B
	SgrB2_a_03_TE ✓		
	SgrB2_a_03_TC ✓		
	SgrB2_a_03_7M ✓		
	SgrB2_a_03_TP ✓ All data taken		
	3c454.3_SgrB2_a_03_TP ✓		

Check observing status for all of your projects at a glance

Monitor Project Status: SnooPI



Listing of PI'ed projects

- 👍 Project has been submitted (Phase 1)
- ✗ Rejected at proposal review stage
- * Approved but SBs not yet prepared
- 👍 SBs prepared but are not yet in the observing queue
- 🔴 SBs are in the observing queue but not yet taken
- 🟡 Some data has been taken
- ✅ All the data has been taken
- ☑ Completed and delivered
- ☑ Partially completed and all data taken has been delivered
- 🛑 Project is timed out
- ✗ Project cancelled and not observed
- 🔄 Project that are not to be observed
- ❓ Unknown status

Monitor Project Status: SnooPI

Single Project View:



SnooPI

John Smith, EU Executive,
EU ARC

All projects

Contact scientist



Project Code: 2013.1.06789.S . [Full Proposal \[pdf\]](#). Grade B. ARC node: Czech. Contact scientist: Jack Black

[Project report.](#)

2013.1.06789.S	✓	Exec.
Observing the centre of the galaxy with ALMA		
ObsUnitSet		
SG OUS (CH3CN 5-4 & isotopologue, H2CS 3-2, HCO+ 1-0, HCN 1-0, HNC 1-0 map)		
Group OUS		
Member OUS (SgrB2)		
SgrB2_a_03_TP	✓	41/40
Member OUS (SgrB2)	⚙️	4/3
SgrB2_a_03_TC		4/3
Member OUS (SgrB2)	⚙️	4/4
SgrB2_a_03_7M		4/4
Member OUS (query)	✓	6/1
3c454.3_SgrB2_a_03_TP		6/1
Member OUS (SgrB2)	⚙️	4/4
SgrB2_a_03_TE		4/4




Click here to find QA Report



Monitor Project Status: *SnooPI*



Single Project View:

-  a set of gears indicate that the OUS is being processed;
-  a truck indicates that the OUS has been delivered
-  an ambulance indicates an OUS for which QA3 is in progress.

Monitor Project Status: Optional emails

- Subscribe to email notification for updates on changes to project status through your Science Portal user profile
 - ...
 - Phase2Submitted
 - Running
 - Partially Observed
 - Fully Observed
 - Pipeline Processing
 - ...
- **With or without optional emails, PIs always receive notification when new data are available**

Optional emails




Atacama Large Millimeter/submillimeter Array
In search of our Cosmic Origins



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Observatory News

[Additional Information for Cycle 6 Proposals](#)
Feb 01, 2018

[New Science Verification data are now available for download](#)
Jan 22, 2018

[Announcement of intent to release a new installment of Science Verification data](#)
Feb 03, 2018
[More...](#)

EU ARC News

[Researcher position available at the Nordic ARC node](#)
Jan 10, 2018

[Post-doc position available at the Italian ARC-node](#)
Dec 20, 2017

[2017 European Radio Interferometry School](#)
May 11, 2017

[More...](#)

Status

[ALMA Cycle 5 Config Schedule](#)

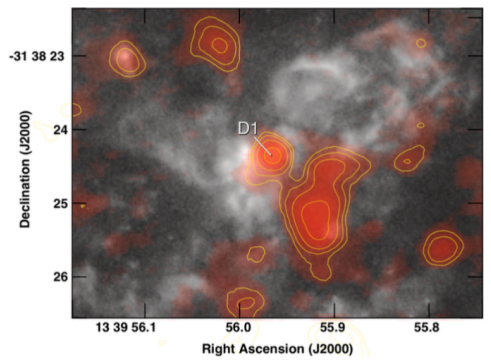
Refereed publications: 916

Last observed source: W43-MM1

Current configuration: C43-5

[More...](#)

Science Highlights - Molecular Gas Within the Supernebula of the Dwarf Galaxy NGC 5253



One of the areas of extragalactic research which makes great use of ALMA's resolution and sensitivity is the study of the molecular gas properties of dwarf galaxies. In a [recent study](#) by Dr. Jean Turner and her collaborators, they make use of Band 7 ALMA observations to detect warm $^{12}\text{CO}(3-2)$ and $^{13}\text{CO}(3-2)$ emission (Cloud D1) from the core of a giant star-forming region, in the dwarf galaxy NGC 5253. This "supernebula" is the source of one-third of the galaxy's infrared luminosity and is in proximity to optical clusters with measured stellar ages of ~ 1 Myr. From radio recombination line analysis, the region is estimated to have 1400-1800 O stars..

[Full Summary...](#)



Optional emails



ALMA Central Authentication Service (CAS)

ALMA
username and
password



Enter your NetID and Password

NetID:

Password:

Warn me before logging me into other sites.

For security reasons, please Log Out and Exit your web browser when you are done accessing services that require authentication!

If you don't have an account, you can create one in the following link:
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You may find a solution to your problem in the Support Center/Knowledgebase:
[Helpdesk](#)

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